

CLAIMS

1. A device testing apparatus comprising:

a connection terminal to which an electronic device under test is detachably connected;

a pusher for pushing the electronic device in the direction of the connection
5 terminal so as to connect the electronic device to the connection terminal;

a cooling unit attached to the pusher for cooling the electronic device;

a temperature sensor for measuring a temperature of the device; and

a controller for controlling a cooling output of the cooling unit to cancel out
heat generated by the electric device during tests and maintain the device constantly
10 at a predetermined temperature on the basis of a temperature signal output by the
temperature sensor.

2. A device testing apparatus comprising:

a connection terminal to which an electronic device under test is detachably
connected and

a cooling unit for directly or indirectly cooling the connection terminal.
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3. A device testing apparatus comprising:

a socket having a connection terminal to which an electronic device under
test is detachably connection and

a cooling unit for directly or indirectly cooling the socket.

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4. The device testing apparatus as set forth in claim 1, further comprising a chamber for maintaining a predetermined ambient temperature of the connection terminal to which the electronic device is detachably attached.

5. The device testing apparatus as set forth in claim 1, wherein the cooling unit includes an element for cooling by electricity.

6. The device testing apparatus as set forth in claim 1, wherein the cooling unit includes a cooling medium blowing means for blowing a cooling medium around the electronic device.

7. The device testing apparatus as set forth in claim 1, wherein the cooling unit includes projections or depressions for heat exchange for increasing the cooling efficiency by blowing the cooling medium.

8. The device testing apparatus as set forth in claim 7, wherein the projections or depressions for heat exchange are heat absorbing and radiating members.

9. A device testing apparatus comprising:

a tray for testing while pushing terminals of a plurality of electronic devices carried on the tray against contact portions of a test head;

a pusher for pushing each of the plurality of electronic devices held on the
5 tray in the direction of the contact portions; and

a heat absorbing and radiating member provided at the pusher.

10. The device testing apparatus as set forth in claim 9, wherein the pusher comprises:

a pusher base provided to be able to approach and move away from a contact portion and

5 a pusher block provided integrally or separately from the pusher base and contacting an electronic device from the surface opposite to the contact portion to push the same.

11. The device testing apparatus as set forth in claim 9, wherein the heat absorbing and radiating member is formed integrally with at least part of the pusher.

12. The device testing apparatus as set forth in claim 10, wherein the pusher block is configured separate from the pusher base and further comprises an elastic member imparting elasticity in the pushing direction of the electronic device to the pusher block.

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13. The device testing apparatus as set forth in claim 12, wherein the heat absorbing and radiating member is provided between elastic members.

14. The device testing apparatus as set forth in claim 12, wherein heat absorbing and radiating members are provided at the two sides of an elastic member.

15. The device testing apparatus as set forth in claim 9, wherein a flow of gas in the chamber for maintaining the electronic device at a predetermined temperature is blown against the heat absorbing and radiating member.

16. The device testing apparatus as set forth in claim 15, wherein the pusher is formed with a passage for guiding the flow of gas in the chamber for maintaining the electronic device at a predetermined temperature in the direction of the heat absorbing and radiating member.

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17. The device testing apparatus as set forth in claim 9, wherein the pusher is formed with a nozzle for guiding temperature control gas, separate from the gas flow in the chamber for maintaining the electronic device at a predetermined temperature, in the direction of the heat absorbing and radiating member.

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18. A device tester comprising:

connection terminals to which an electronic device under test is detachably connected;

a pusher for pushing the electronic device in the direction of the connection terminals so as to connect the electronic device to the connection terminals;

a suction head having a vacuum suction bore for adhering the electric device by suction, the suction head being attached to the pusher;

a cooling unit attached to the suction head for cooling the electronic device;

a temperature sensor for measuring a temperature of the device; and

a controller for controlling a cooling output of the cooling unit to cancel out heat generated by the electric device during tests and maintain the device constantly at a predetermined temperature on the basis of a temperature signal output by the temperature sensor.

19. The device tester as set forth in claim 18, further comprising a chamber for maintaining a predetermined ambient temperature of the connection terminal to which the electronic device is detachably attached.

20. The device tester as set forth in claim 18, wherein the cooling unit includes an element for cooling by electricity.

21. The device tester as set forth in claim 18, wherein the cooling unit includes a cooling medium blowing means for blowing a cooling medium around the electronic device.

22. The device tester as set forth in claim 18, wherein the cooling unit includes projections or depressions for heat exchange for increasing cooling efficiency by blowing the cooling medium.

23. The device tester as set forth in claim 22, wherein the projections or depressions for heat exchange are heat absorbing and radiating members.

24. A device tester comprising:

connection terminals to which an electronic device under test is detachably connected; and

a cooling fin for directly or indirectly cooling the connection terminals to
5 cancel out heat generated by the electric device during tests and maintain the device constantly at a predetermined temperature.

25. The device tester as set forth in claim 24, further comprising a chamber for maintaining a predetermined ambient temperature of the connection terminal to which the electronic device is detachably attached.

26. The device tester as set forth in claim 24, where the cooling fin is a part of a cooling unit which includes an element for cooling by electricity.

27. The device tester as set forth in claim 24, wherein the cooling fin is a part of a cooling unit which includes a cooling medium blowing means for blowing a cooling medium around the electronic device.

28. The device tester as set forth in claim 24, wherein the cooling fin increases cooling efficiency by blowing the cooling medium.

29. The device tester as set forth in claim 28, wherein the cooling fin is a heat absorbing and radiating member.

30. The device tester as set forth in claim 24, wherein a plurality of sets of cooling fins are provided.

31. A device tester comprising:

a socket having connection terminals to which an electronic device under test is detachably connected; and

a cooling fin for directly or indirectly cooling the socket to cancel out heat
5 generated by the electric device during tests and maintain the device constantly at a
predetermined temperature.

32. The device tester as set forth in claim 31, further comprising a chamber for maintaining a predetermined ambient temperature of the connection terminal to which the electronic device is detachably attached.

33. The device tester as set forth in claim 31, where the cooling fin is a part of a cooling unit which includes an element for cooling by electricity.

34. The device tester as set forth in claim 31, wherein the cooling fin is a part of a cooling unit which includes a cooling medium blowing means for blowing a cooling medium around the electronic device.

35. The device tester as set forth in claim 31, wherein the cooling fin increases cooling efficiency by blowing the cooling medium.

36. The device tester as set forth in claim 35, wherein the cooling fin is a heat absorbing and radiating member.

37. The device tester as set forth in claim 31, wherein a plurality of sets of cooling fins are provided.